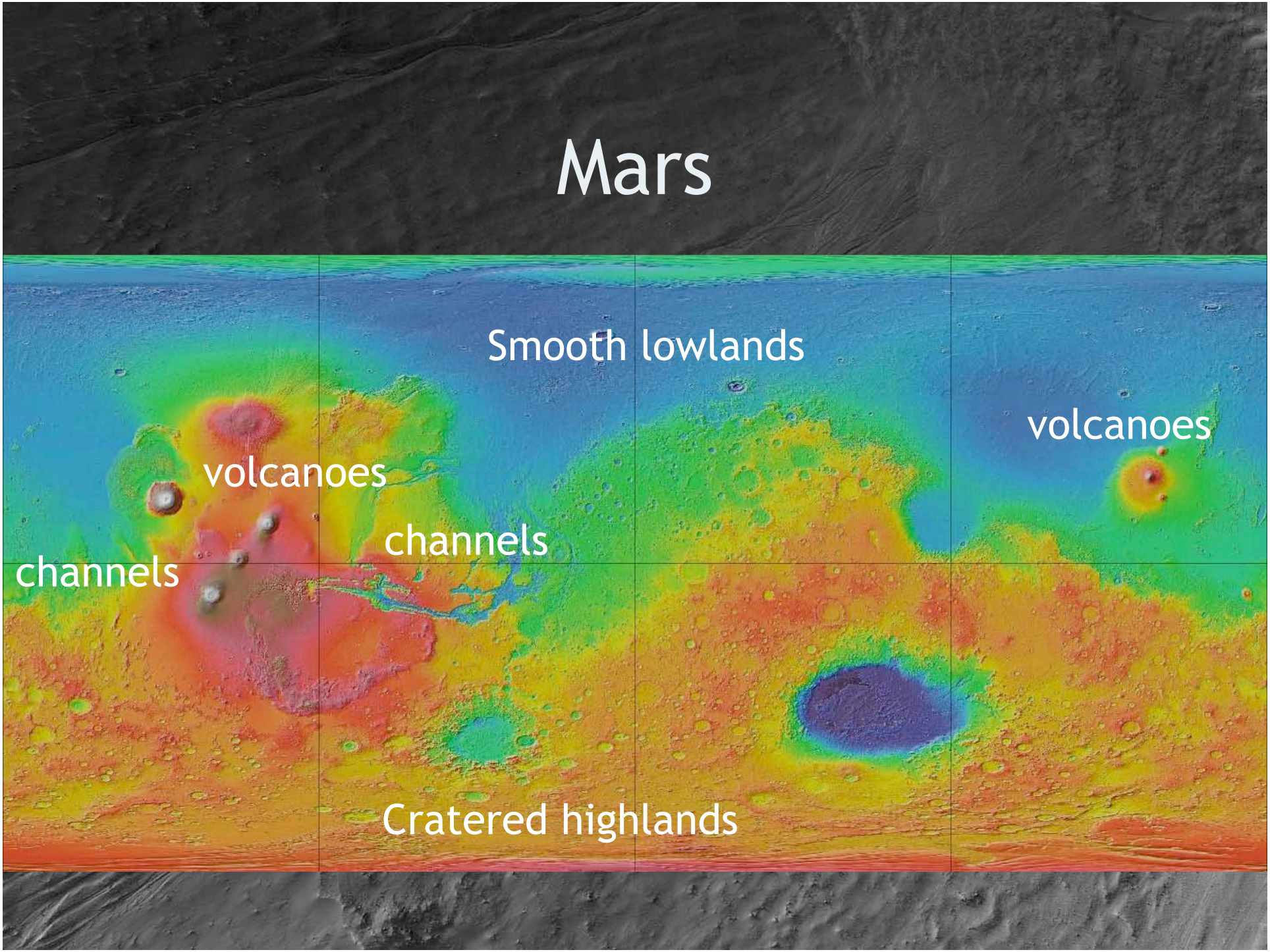
HiRISE Quest Challenge

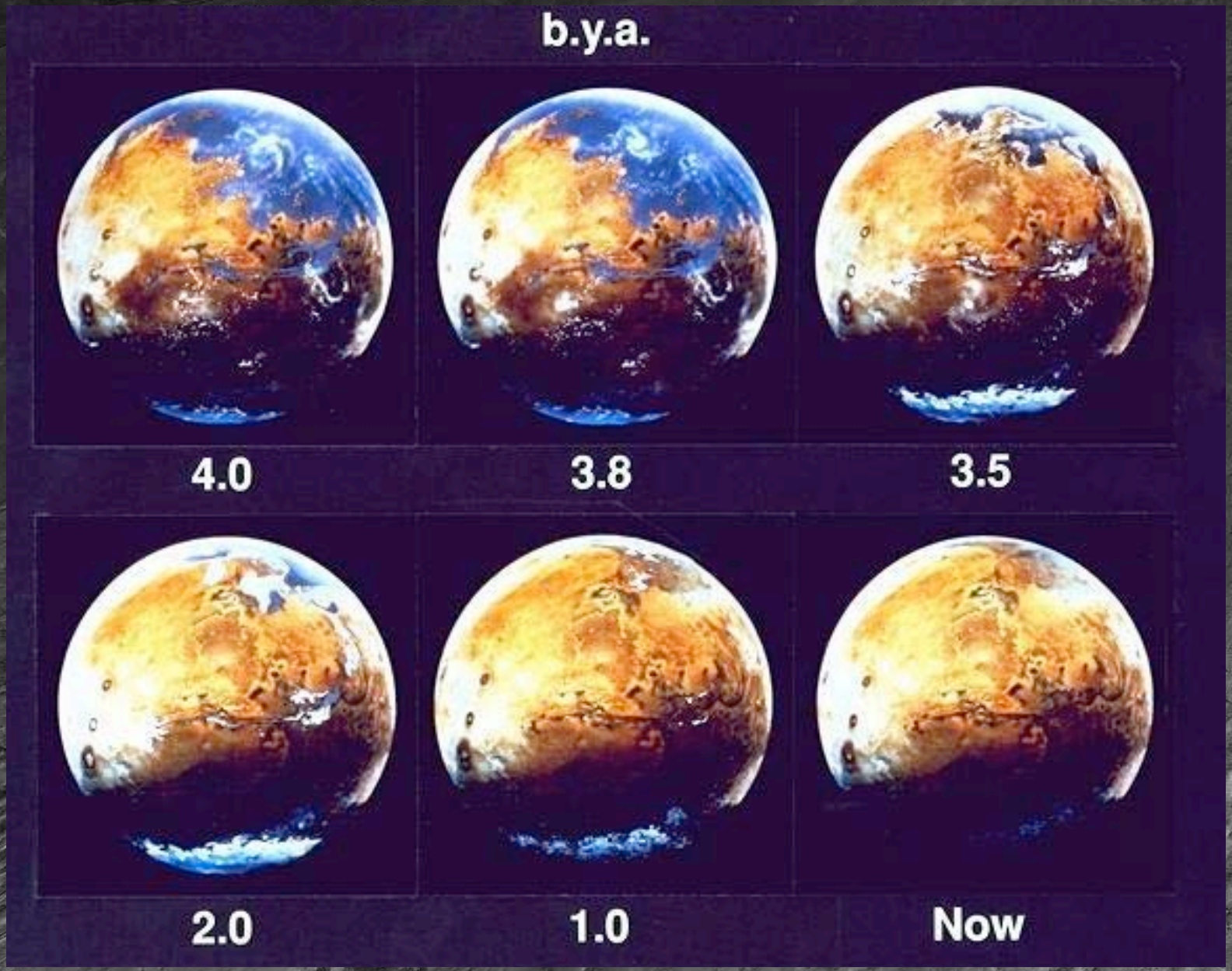
Welcome!

What are we going to do today?

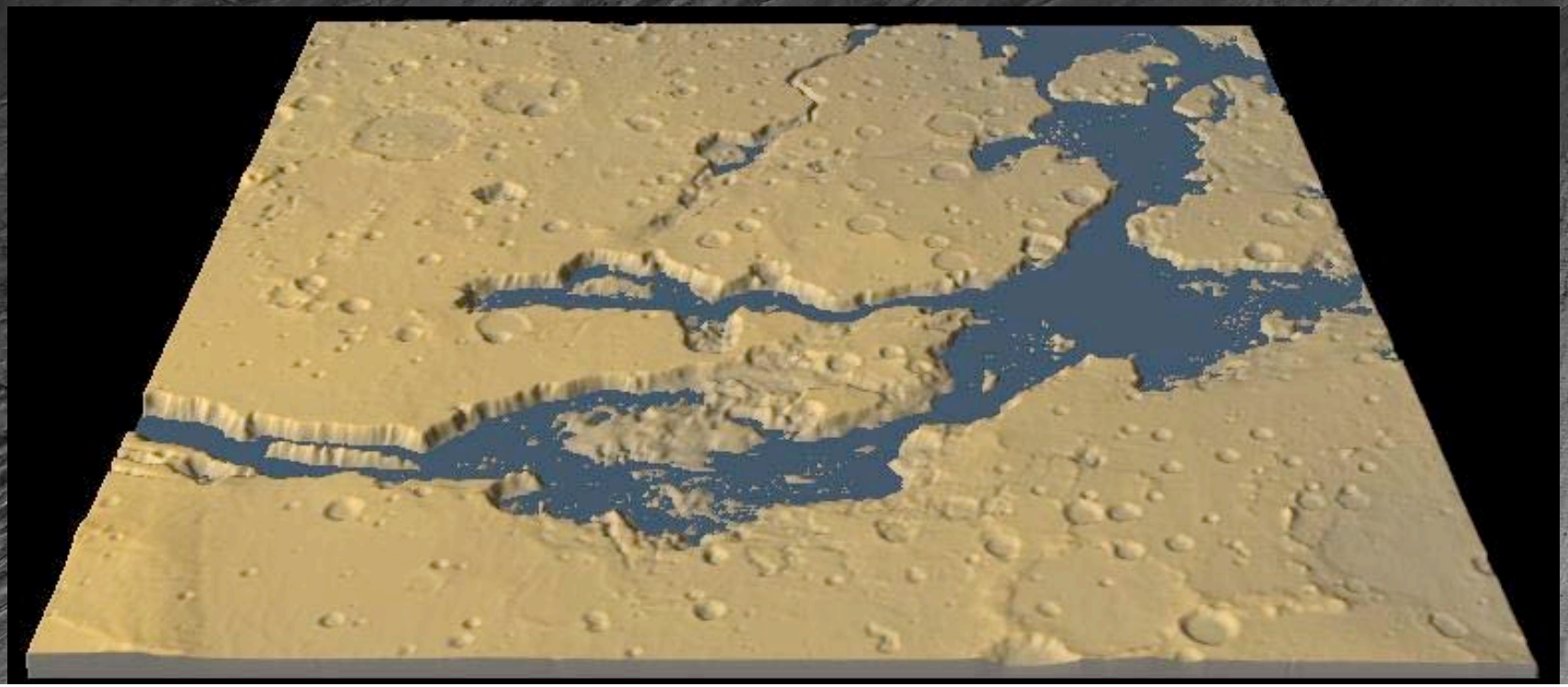
- Talk briefly about the motivation to study Mars
- Meet the team
- Learn about MRO and HiRISE
- Look at some of the HiRISE Images
- Learn how to get prepared to suggest images
- Learn how to use HiWeb to make suggestions
- Answer any questions


Mars
Smooth lowlands
volcanoes
volcanoes
channels
channels
Cratered highlands

Water on Mars?



Water on Mars?




The HiRISE Team

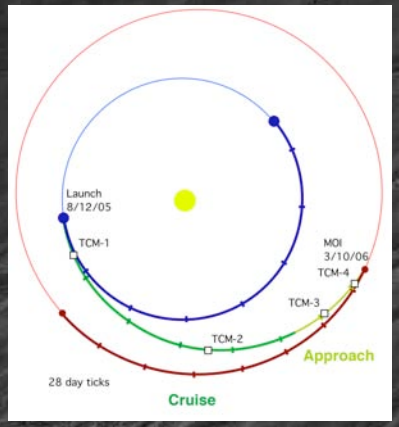
MRO: Mars Reconnaissance Orbiter

MRO in thermal vacuum chamber

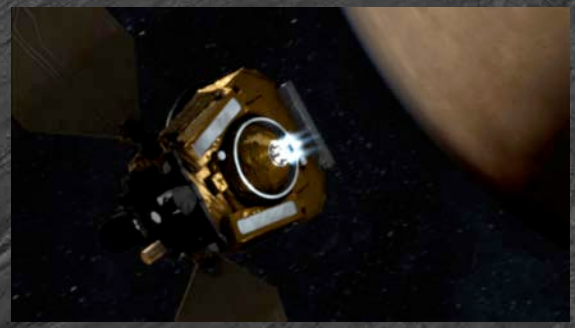
MRO Mission Overview

Launch
August 12, 2005

Interplanetary Cruise
August 2005 - March 2006

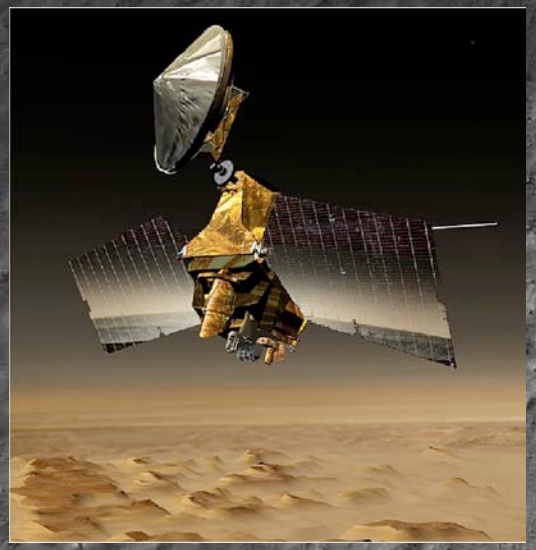


Approach and Orbit Insertion
March 10, 2006



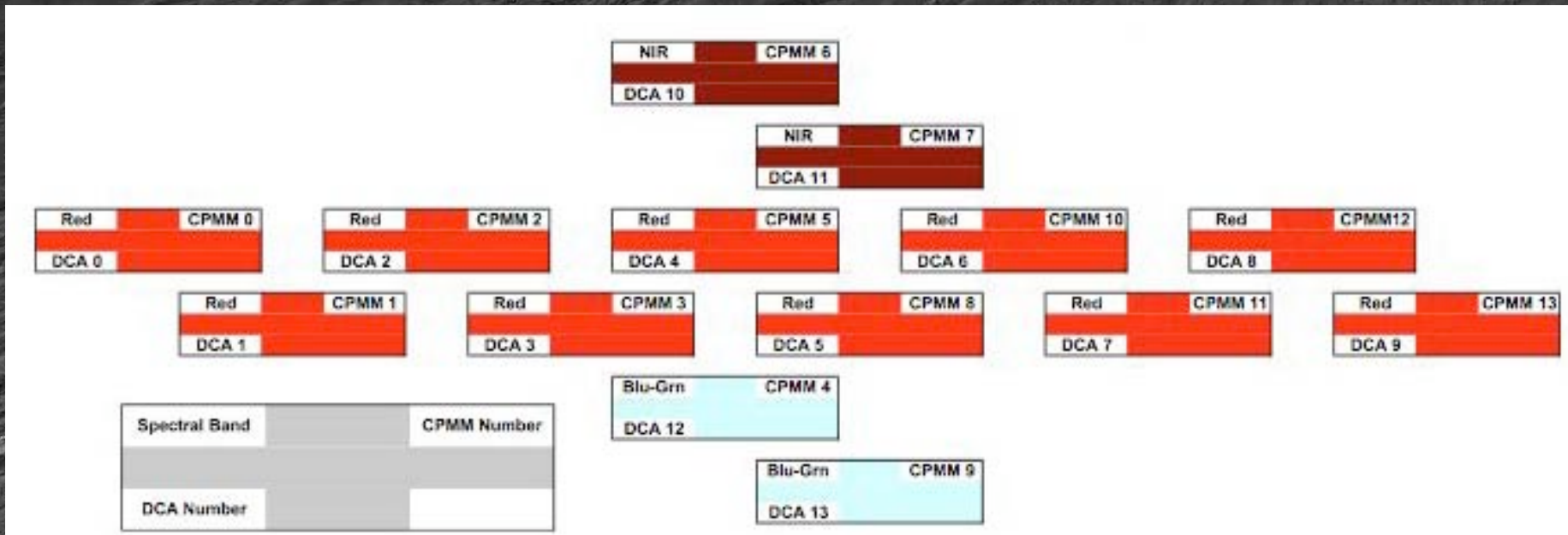
Aerobraking
March - September 2006

Primary Science Phase
November 7, 2006 - December 2010



HiRISE: High Resolution Imaging Science Experiment

HiRISE Flight Structure
(approximately 70 cm in diameter by 1.4 m in length)



First Steps: Learn about Mars & HiRISE

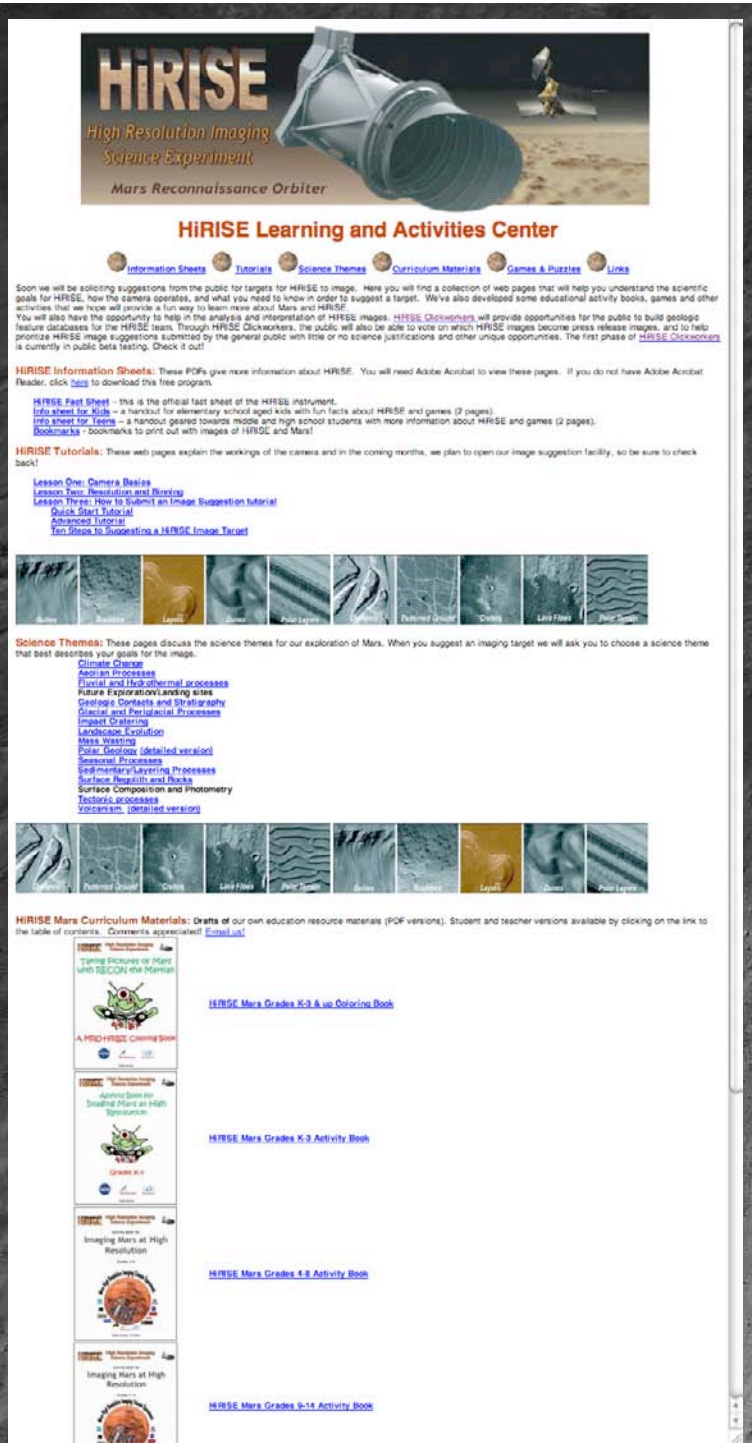
- http://marsoweb.nas.nasa.gov/hirise/

  Check out all of the links:
  - Image viewer
  - HiRISE blog
  - Games and activities
  - Clickworkers

  The website also has more in-depth information on the instrument, current research and more.

First Steps: Learn about Mars & HiRISE

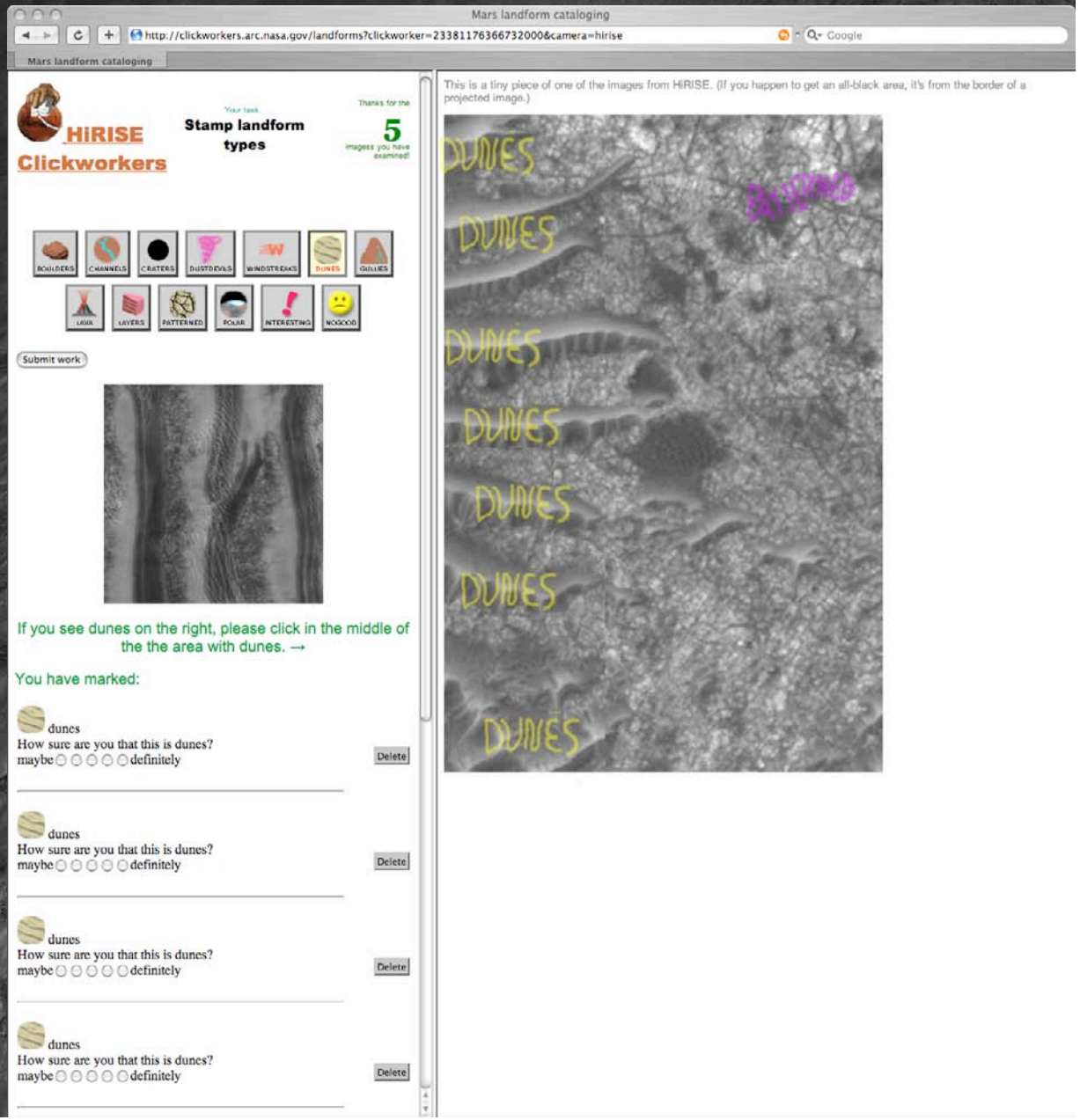
- Learning & Activity Center (http://hirise.seti.org/hirise)
  - Read fact sheets, play games, do activities
  - Read about the camera and science themes



First Steps: Learn about Mars & HiRISE

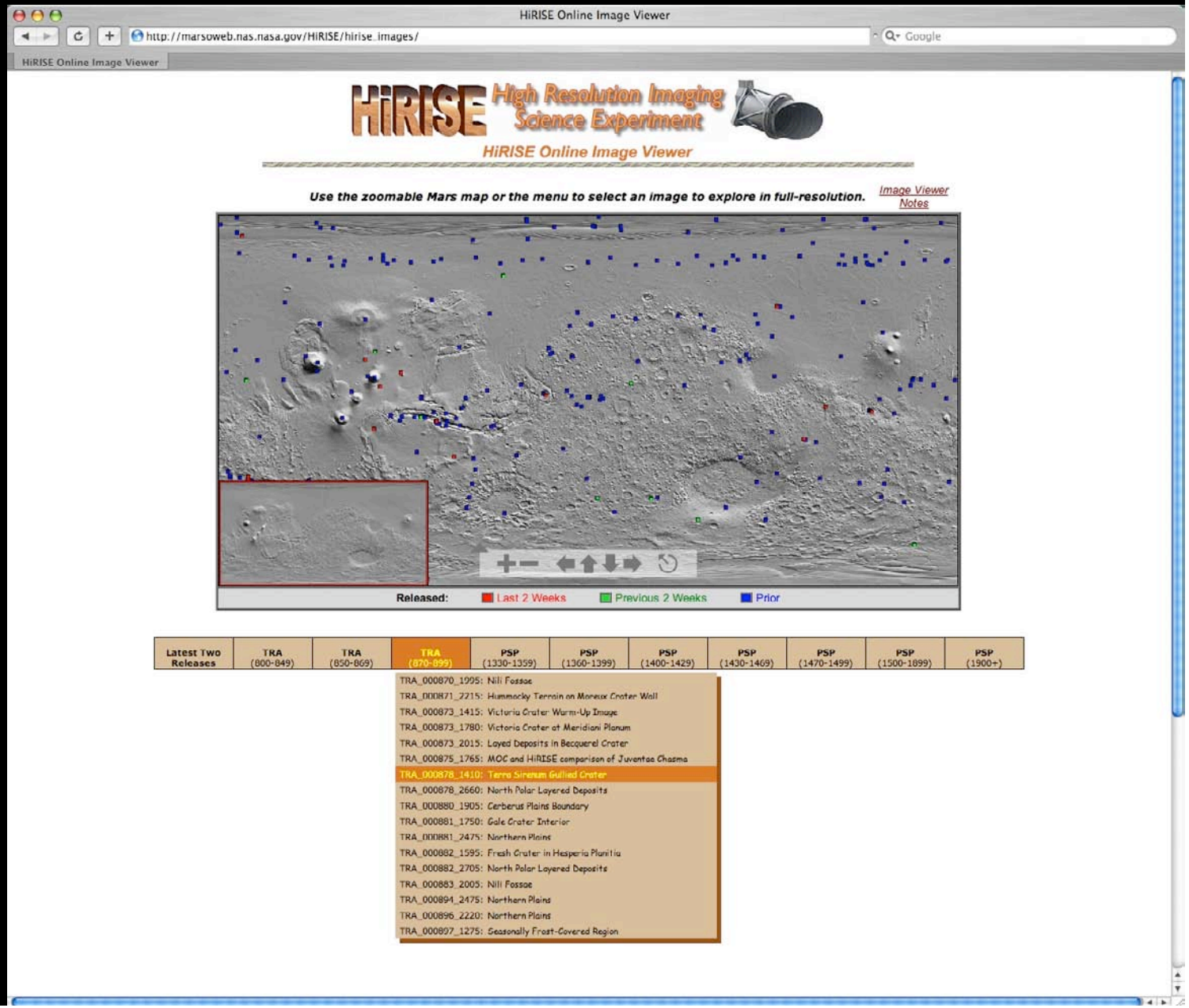
- Clickworkers

(http://clickworkers.arc.nasa.gov/hirise)



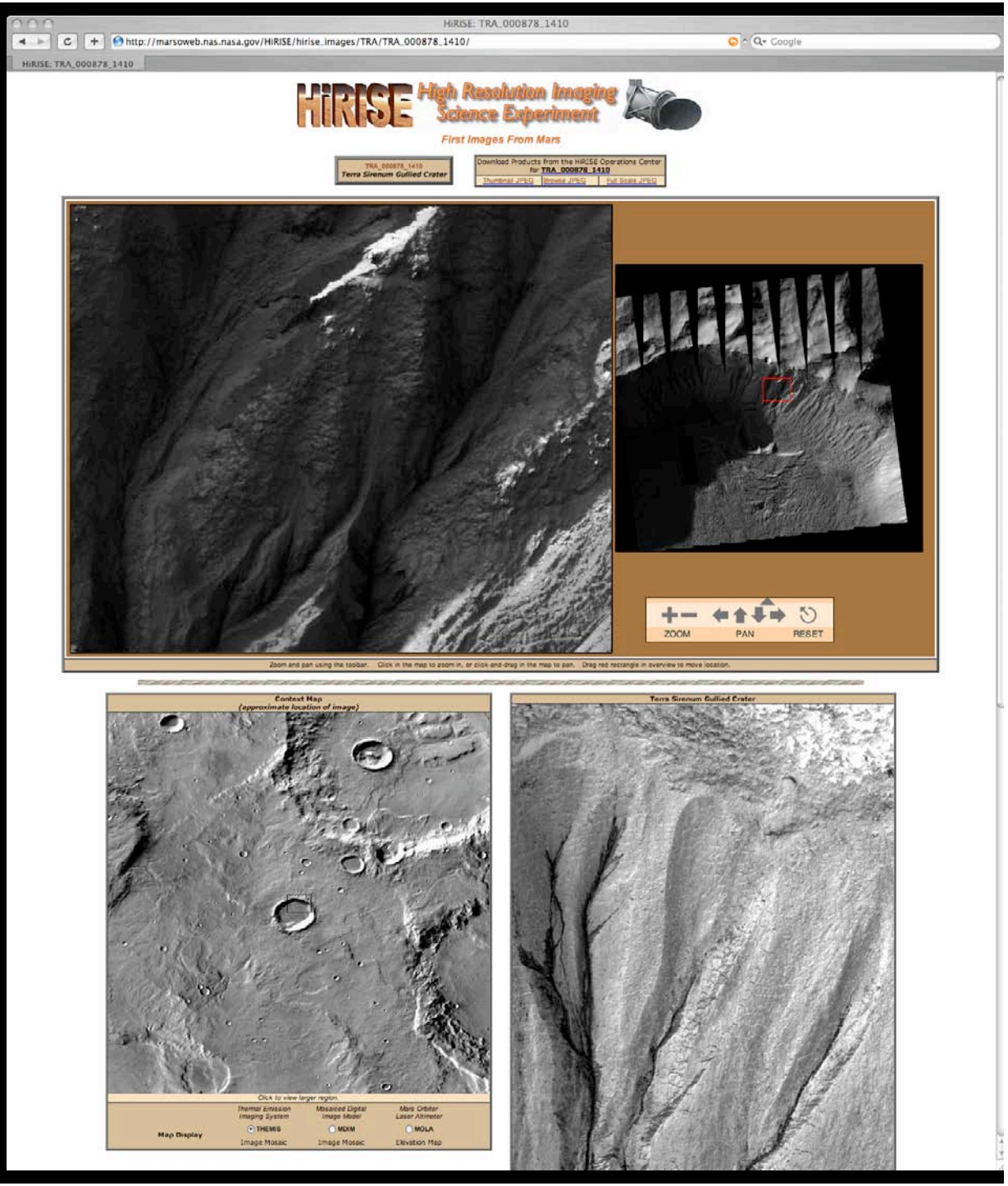
First Steps: Learn about Mars & HiRISE

- Viewing Images



First Steps: Learn about Mars & HiRISE

- Viewing Images



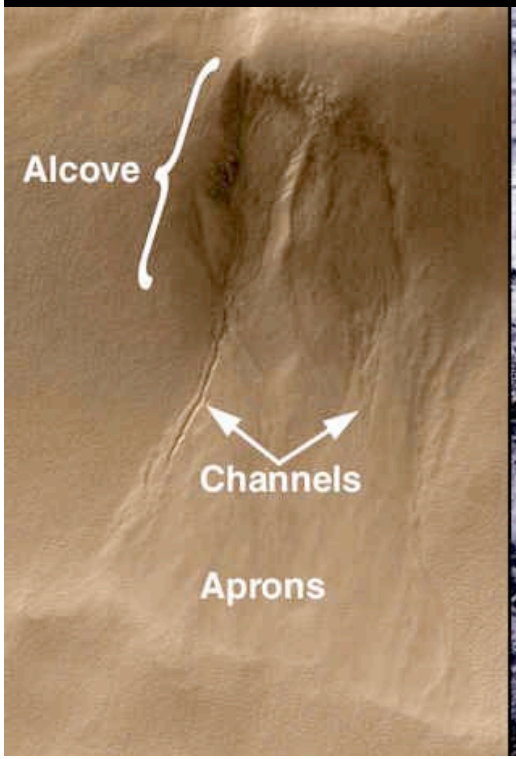
Next: What are some examples of water-related features?

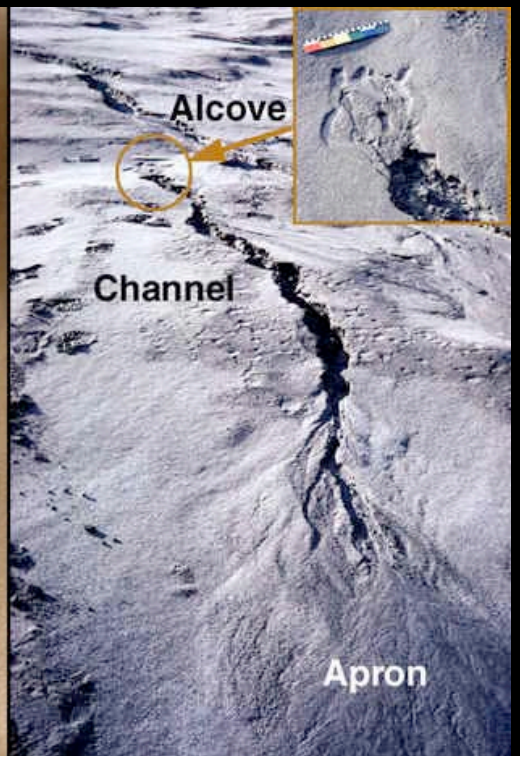
- Gullies
- Valley networks
- Channel systems
- Crater lakes
- Shorelines

Remember scale: You won't be able to see an entire channel system, crater, or valley network. What part of the system do you think is most valuable to see with high resolution imagery to see evidence of past water?

Next: What are some examples of water-related features?

Terra Sirenum Gullied Crater



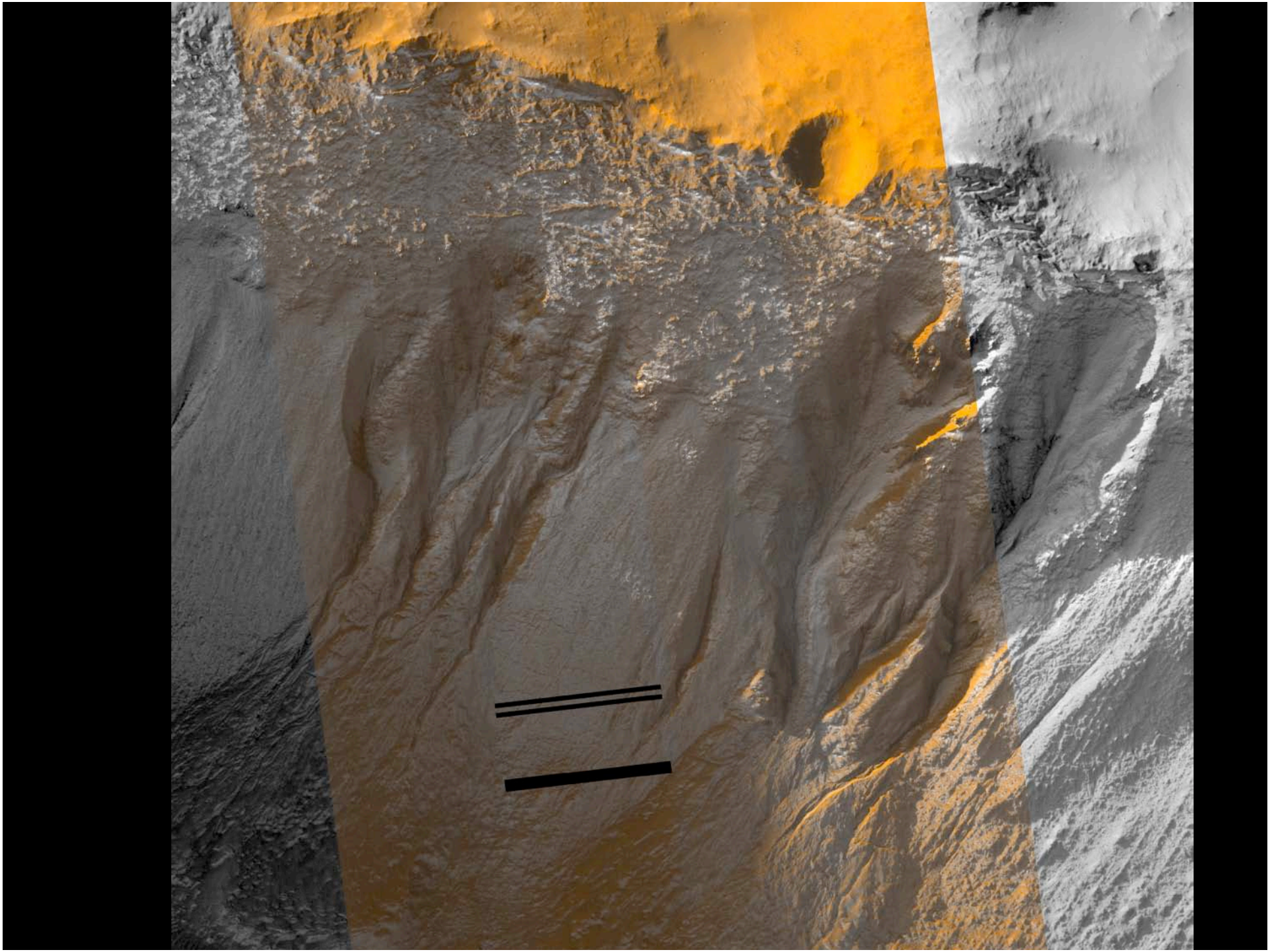


Next: What are some examples of water-related features?

Alluvial Fans in Mojave Crater

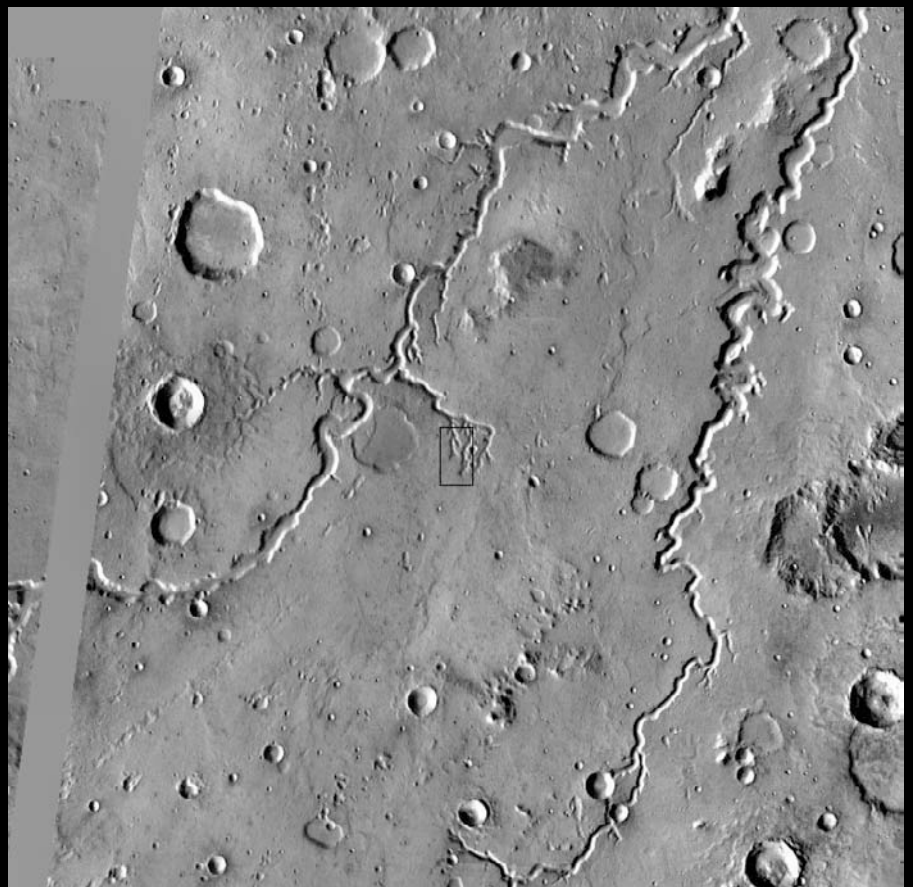
Re-image to monitor changes?

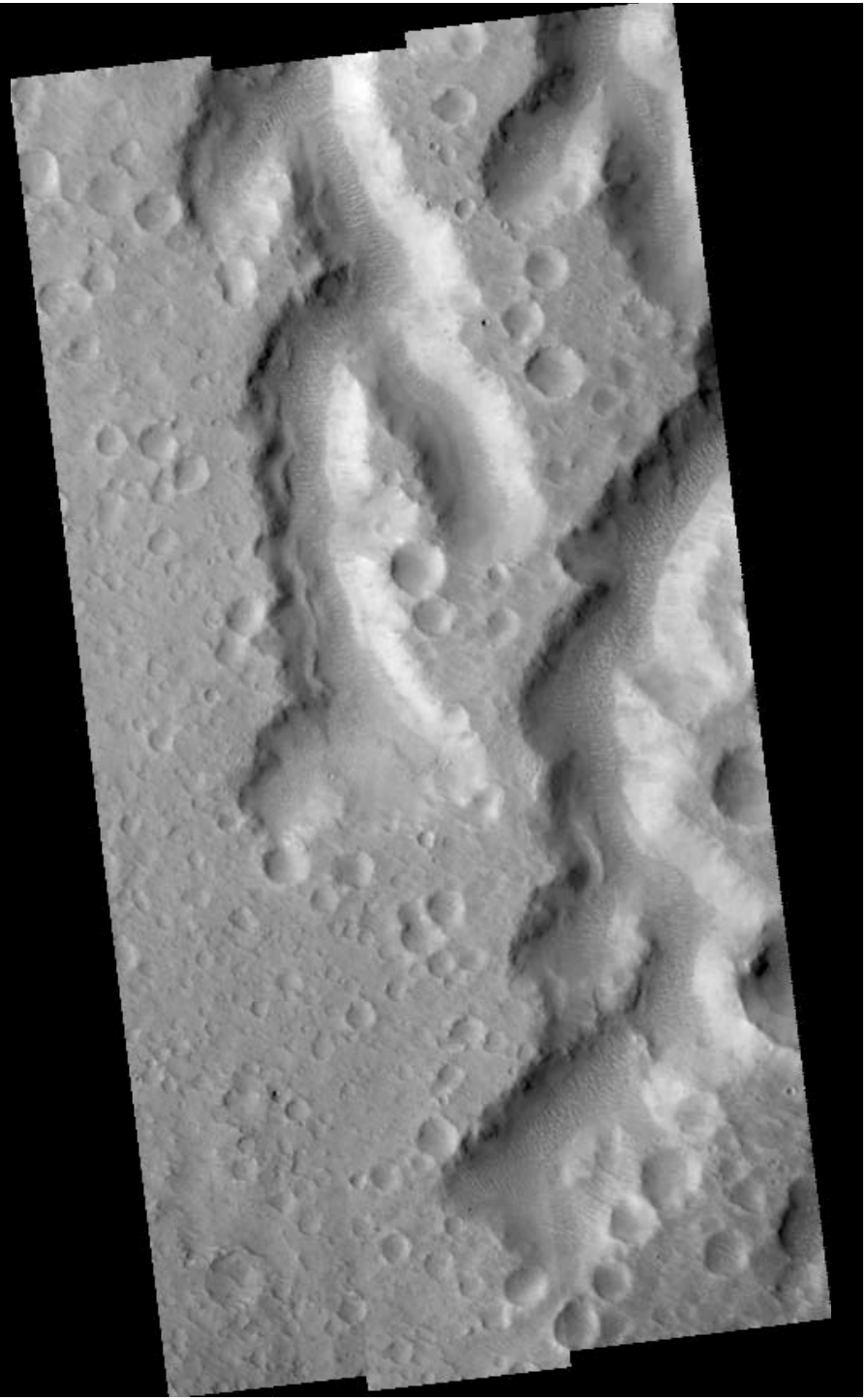
Re-image to monitor changes?



Next: What are some examples of water-related features?

Nanedi Vallis tributaries





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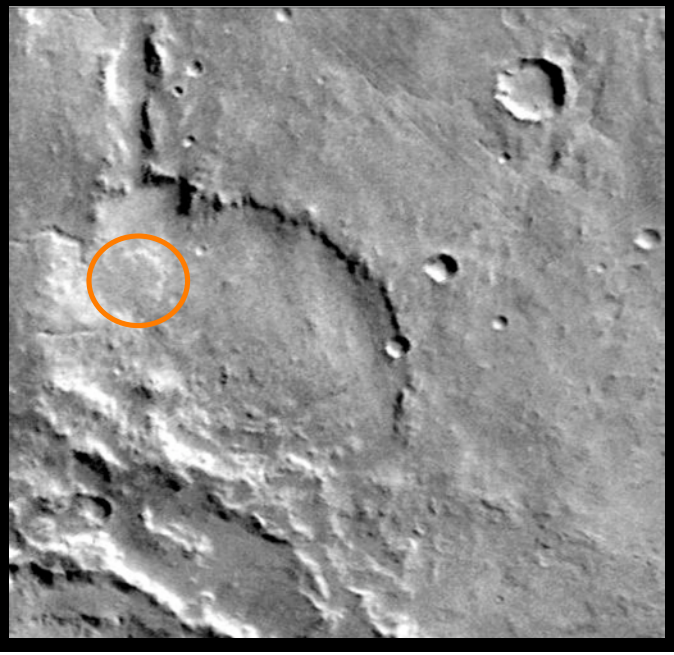
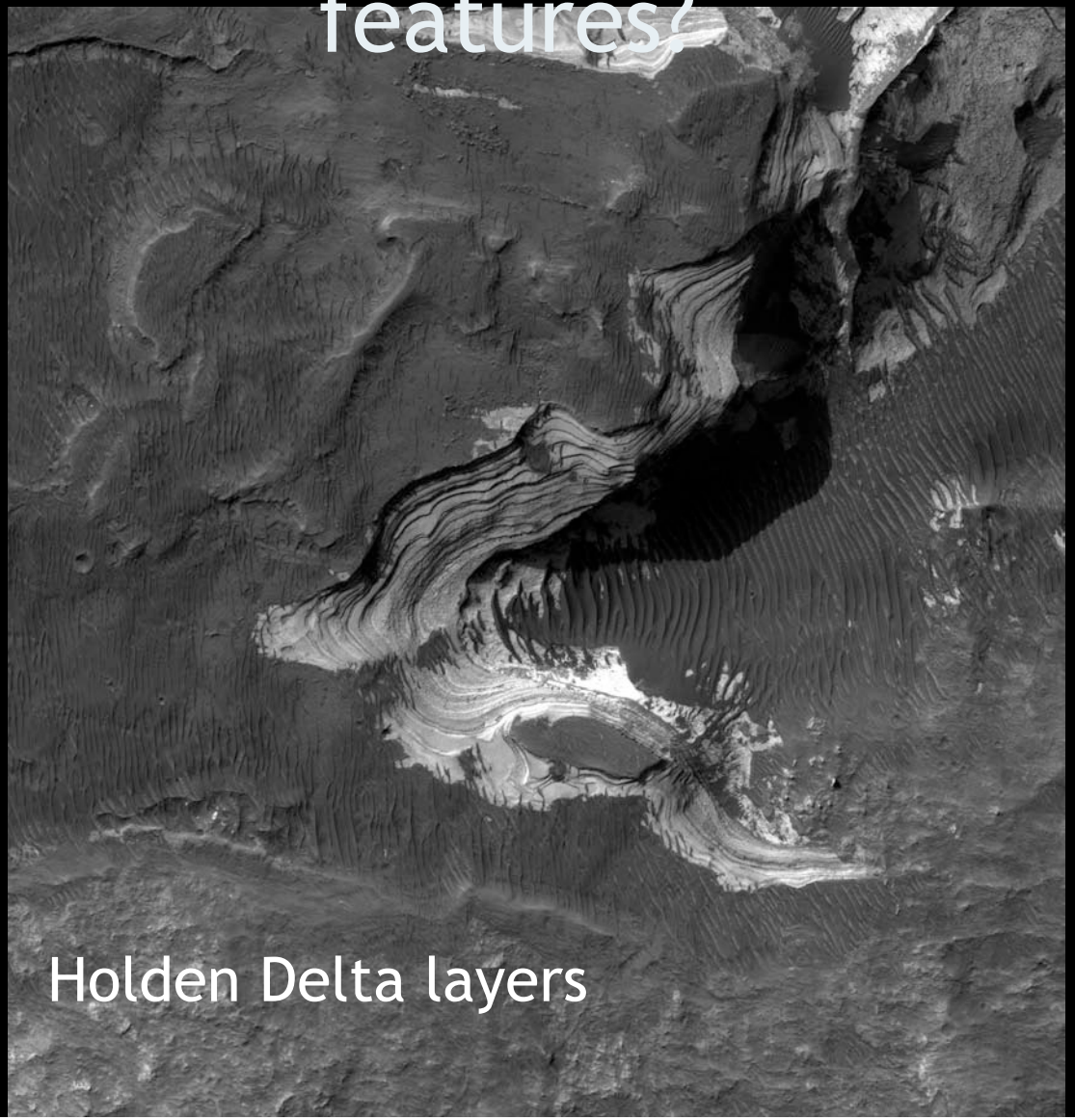
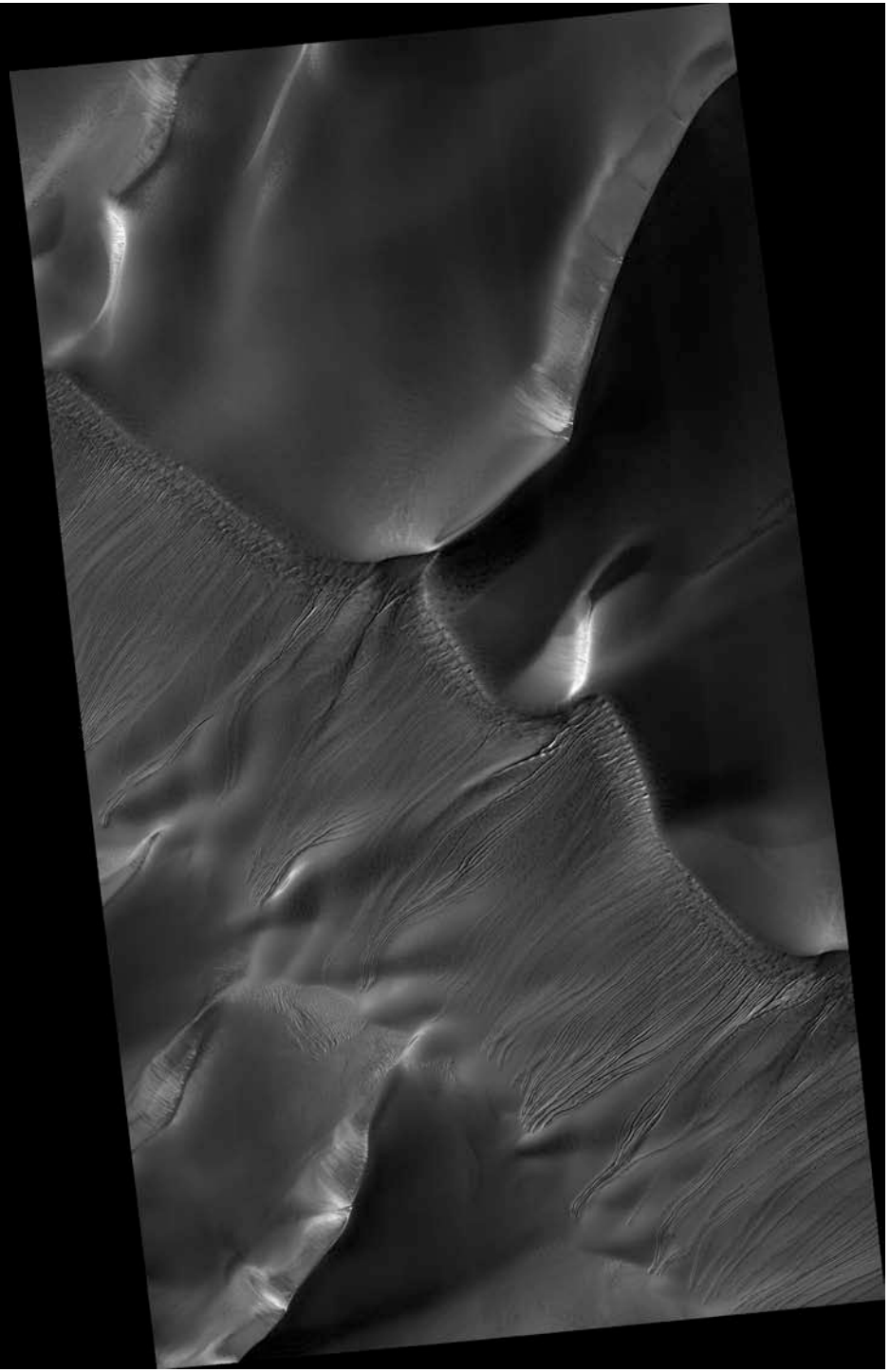




Holden Delta layers

Next: What are some examples of water-related features?

Maybe? Channels on Dunes in Russell Crater

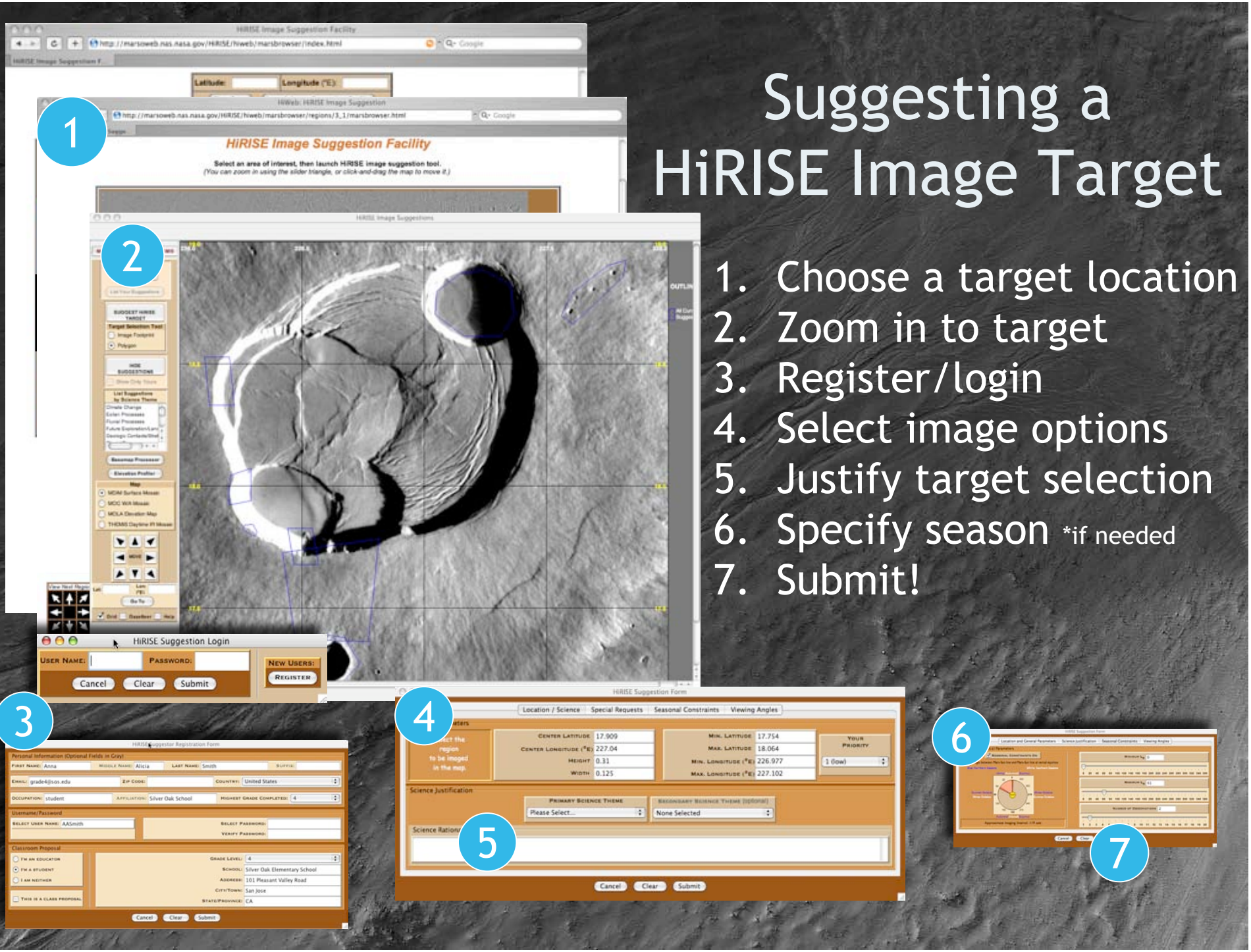


Finally: Make your target suggestion using HiWeb

- Log in
- Look at Mars using all of the imagery available (Viking, MOC, MOLA, THEMIS, TES)
- Use High-res MOC and Themis images to choose your site
  - Choose an entirely new site
  - Re-image a site in HiRISE (S. mid lat.)
- Register to make your target suggestion

(If you get lost, you can check out the tutorials on the HiRISE Learning Page for help)

Suggesting a HiRISE Image Target



1. Choose a target location
2. Zoom in to target
3. Register/login
4. Select image options
5. Justify target selection
6. Specify season *if needed
7. Submit!